ARCHITECTVRE

THE PROFESSIONAL ARCHITECTURAL MONTHLY

VOL. XXX AUGUST, 1914 No. 2

ARCHITECTURE. Edited by a Board of Architects in the interests of the profession, is published the fifteenth of every month by FORBES & COMPANY, LTD., (A. Holland Forbes, Prest.), 527 Fifth Avenue, New York.

PRICE, mailed flat to any address in the United States, Mexico or Cuba, $5.00 per annum, in advance; to Canada, $6.00 per annum; to any foreign address, $7.00 per annum.

ADVERTISING RATES upon request. The writing and displaying of Advertisements is an art in itself, and the publishers will be pleased to give the Advertiser the benefit of an Expert's experience in this line at no additional expense.

ENTERED at the New York Post Office as second-class mail matter.

PLATES AND ILLUSTRATIONS

EDITORIAL

THE WORK OF AYMAR EMBURY II—THE NEW WORKMEN'S COMPENSATION ACT IN THE STATE OF NEW YORK

IT is with pleasure that we are able to present in this issue plates of a number of houses, together with the plans designed and built during the past year by Mr. Aymar Embury II. His work is so charming and his houses so homelike that they are beyond criticism. For working out his plans he consults with the woman of the house and conforms to her idea of arrangement and convenience for housekeeping. He succeeds in putting about his work an atmosphere of individuality, expressing the comfort of family home life and the hospitable greeting to the stranger.

A CIRCULAR letter sent out to a number of the members of the profession inviting their attention to the new workmen's compensation law which went into effect the first of July is as follows:—

"The purpose of this letter is to ascertain whether there is sufficient interest amongst the profession to form a 'Mutual Association organized by groups of employers,' as permitted by the new workmen's compensation law to go into effect July 1st.

"As you are no doubt aware, the new law makes fixed stipulations as to insurance for employees by employers, and architects are forced to comply with it on almost equal terms with other professions or trades whose risks are far greater.

"Conferences with representatives from stock insurance companies show the costs of the insurance to be a considerable burden, without giving full protection for all employees. This becomes a substantial monetary consideration for which there seems to be no prospect of reimbursement. The following examples will suffice to illustrate:

"(*a*) Insurance for four employees as superintendents, or men visiting buildings regularly, whose names must be given and whose salaries are $75, $60, $45, $35 per week; representing an annual insurance cost of..........$240.00

"(*b*) Insurance for an entire office staff against accidents in the office, annual premium.... 35.00

Total $275.00

"This makes no provision for regular draughtsmen (outside of superintendents) who are forced to go to buildings at various times to obtain measurements, inspect executed work as to design, etc. If they are to be protected, each man must be insured separately on the basis of his full yearly salary, and yet there is no way to ascertain in advance who will be called on for this limited service. The only alternative is to post a ridiculous notice saying that men in this class visit buildings at their own risk, although sent out.

"I feel strongly that the new law is not fair and does not give full protection to architects, because the risk of architect's superintendents is not so great as that of other men of the building trades and moreover the entire force is not protected.

"There are three ways prescribed by law in which insurance can be taken out but the faults above outlined would be incurred by insurance in the 'State Fund' or with a 'Stock Insurance Company.' The third plan consisting of a 'Mutual Association' organized by groups of employers

seems to offer some relief and is especially applicable to our needs.

"This letter invites your co-operation for the possible organization of 100 or more architects into such a group.

"The advantages are obvious considering how seldom accidents occur among superintendents or members of an architect's office in visiting buildings or in the office.

"If you are interested will you kindly signify and a meeting will be called if a sufficient number of affirmative answers are received."

The suggestion made in this letter as to the formation of a mutual association would seem to be both valuable and practical since it is evident that the risks incurred by the average architect's superintendent are far less than those incurred by workmen employed in the construction of a building, not only because the superintendent is in the building a very much less time, but also he is seldom compelled to go into dangerous positions, since his business is the inspection of completed work and not the actual erection of work. He has besides, time enough to test scaffolds, he is not carrying heavy loads across loose planks, his hands are not busy with tools when they should be used to hold on, and all of these things cut down his risks very materially, apparently without affecting the rate of risk prescribed by the companies. Certainly no architect would wish his employees to go unprotected when all other employees are protected, but likewise no architect would desire to help pay for the risks assumed by the insurance companies for the men employed in other and more dangerous occupations.

The writer is not sufficiently familiar with the law to form any very intelligent opinion of its merits, and even thorough familiarity with the provisions of the act would not assist much toward the knowledge of how it would work, until it has been tried out, and the insurance companies themselves with all their experience and the staff of statistical experts to advise them, confess themselves to be somewhat at sea as to the proper rates of compensation. But it can be said with certainty that the law is in the end bound to make for good, just as inspection by the Board of Fire Underwriters has improved the quality of electric wiring in our buildings, and insistence by the insurance companies on reasonable precautions in all branches of building construction will unquestionably decrease the liability of our workmen to accident, thereby increasing the earning power of the community, looking at the matter from a purely economic standpoint.

Certain branches of the building business are unquestionably very hazardous, and even with the most careful precautions will result in numerous injuries. It is difficult to see for example, how the Iron Workers' trade can be made safe, but one can foresee a time in the very near future when no employer will dare run the risk of sending his men out on the frame of a building covered with a sheet of slippery ice, a practice not uncommon to-day Nor are the building trades completely free from occupational diseases; lead poisoning of the painters is not uncommon, and while the migratory character of the journeymen painters is going to make it extremely doubtful where they contracted the disease, a man who is willing to risk his health in necessary work of this sort ought to be protected, and will be protected under the workmen's compensation act.

The employees of architects, however, have no occupational diseases, unless it is the familiar "draughtsman elbow" acquired by leaning the elbows on the table while the hands support the head, so that the draughtsman can gaze into space without straining his back, and the dangers to which the average draughtsman is exposed even when he goes out on a job to superintend are more frequently thumb tacks in the feet than bricks on the head. With a clerk of the works it is a little different matter; he is constantly on the job, and really undergoes considerable risks, but fortunately for the architects the clerk of the works is an employee of the client, and not of the architect, and even if he is employed through the architect's office, his insurance would naturally be provided by the owner.

There is one feature of the law which is not generally understood in the architect's profession, and that is that its provisions are mandatory on architects as well as on manufacturers or contractors, and an architect cannot choose to do without insurance in one of the three forms provided by the act, unless he is strong enough financially to pay, from his own pocket, any possible claims at the rates fixed under the law, and can prove this to the State Commission. The proportion of architects who could pay a very large claim for damage is small, and as there are serious penalties provided for non-compliance with the act, every architect practising in the State of New York, whether his office is in New York or not, must provide himself with some form of insurance and the mutual method suggested in the circular letter seems to be the most practical and the least expensive. No arrangement can be made which will be completely satisfactory for all the architects; men whose practice is confined to country work and light construction, where there is little possible danger to their employees, will not feel much like paying a pro rata share of the loss of those firms whose work is mainly commercial, and somewhat more dangerous, but such men should remember that whether they insure through a mutual association, or through the State fund, or through one of the stock insurance companies, they will inevitably have to share in the greater risks of other concerns, since it is impossible under any one of the three arrangements to make careful and specific examinations of the work of each office, to determine just what proportion of the risk is incurred by their employees and further, since there is no business more liable to fluctuation than architecture, it would need a series of monthly, or even weekly examinations to determine their proper proportions, a thing obviously impracticable.

II. ENGINEERING FOR ARCHITECTS

BY DEWITT CLINTON POND

Mr. Pond had charge of the practical course in structural design at Columbia University. He was extremely successful in instructing men who have had little knowledge of mathematics, and these articles have been written with that in view.

THE two formulas given in the first article, $M=S\ I/c$ and $M=\frac{1}{8}Wl$, are the two most common formulas used in engineering work. The "I," used in the first, stands for the moment of inertia of the cross section of the beam. To give a definition of this term would be useless as it would only cause confusion. For any steel beam the

moment of inertia is given in the handbooks published by the steel companies. If, however, the architect should want to know the size of a wooden beam, strong enough to carry a given load, he must find this factor for himself. This is by no means a difficult task.

The cross section of all wooden beams is rectangular, and, for this kind of a section, the formula that gives the moment of inertia is $I=1/12\ bd^3$, in which b denotes the breadth of the beam, and d denotes the depth. So, for a 2″ x 10″ wooden joist, the formula would be written, $I=1/12 \times 2 \times 10 \times 10 \times 10$, and I, for this beam, would be 166.6. This is all that is necessary for an architect to know about moments of inertia.

I/c, the section modulus, is found by using the formula $I/c=1/6\ bd^2$. If the architect bears in mind that c equals one half of d, and that $I=1/12\ bd^3$, he can easily derive this formula for himself. The section modulus of the joist can be determined in the following manner: $I/c=I/6 \times 2 \times 10 \times 10=33.3$. This checks with the fact that 166.6 divided by 5 equals 33.3.

To find the safe uniform load that the joist will carry over a span of ten feet the formula $M=\frac{1}{8}Wl$ is used:

$\frac{1}{8} \times W \times 10 \times 12=S\ I/c=1{,}200 \times 33.3.$

$\frac{1}{8} \times W=1{,}200 \times 33.3/120.$

$W=333.3 \times 8=2{,}666$ pounds.

In the steel handbooks, under the heading of "Safe Loads in Pounds for Wooden Beams" or simply "Wooden Beams," loads are given for joists, one inch thick, for various spans and depths. On page 352 in the Cambria Steel Company's handbook, the safe load for 1″ x 10″ wood beam spanning ten feet, is given as 1,333 pounds. A 2″ joist would be twice as strong and would safely carry a load of 2,666 pounds, which checks with the answer given above. It is suggested that the architect figure the safe load for a 3″ x 12″ beam, having a safe working stress of 1,000 pounds per square inch, and a span of 15′-0″. The load should work out to be 3 x 1,067 or 3,201 as given on page 350 of the Cambria book.

The calculation for the above problem is very simple and should take no more than three or four minutes.

Of course the safe loads for wooden beams are given and it is really unnecessary for the architect to determine them, but the calculations serve to make the terms, "moment of inertia" and "section modulus," familiar ones. The importance of this familiarity cannot be too strongly emphasized as the process of finding the sizes of beams and girders should be almost automatic.

The real problem that any designer has to solve is to determine the *kind* and *the magnitude* of the loads. Once these questions are settled, a method of finding the size of beam to carry the loads should take but little thought.

There are two kinds of loads—uniform and concentrated. So far we have only dealt with the first, but later we will take up the problem of finding beams suitable for carrying concentrated loads.

The processes of finding magnitudes of loads will be taken up at once.

There are two types of loads, dead loads and live loads. The dead loads include the weight of walls, and weight of the floor construction. These weights are usually known as floor loads and wall loads. In figure seven the wall load is carried on beams known as spandrel beams, and the floor load is carried on filling-in beams. In some cases, however, the spandrel beams have to carry some of the floor load as well as the wall load.

The floor construction, in this case, is made of a six inch terra cotta arch, between the beams, on which cinder fill is carried. The cinders fill in over the haunches of the arch and are levelled off at the tops of the I-beams. On the cinders wooden sleepers are placed, between which, cement mortar is laid. The wooden flooring is nailed to the sleepers and a hung ceiling is suspended from the lower flanges of the I-beams.

Under the heading "Arches" in the handbooks the

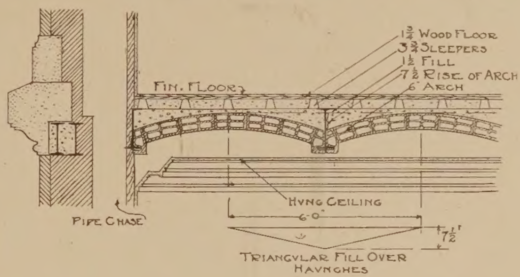


Figure 7

weight of terra cotta arches is found. It will be found that a six inch arch is given as weighing twenty-seven pounds per square foot of floor area. Also, under the heading of "Weights," the weight per cubic foot is given of cinders, cement, and wood.

The beams will be taken as being fifteen inches deep, spaced six feet on centers. The rise of the arch will be an inch and a quarter per foot of span as required by the New York Building Code. For a span of six feet the rise (r—Fig. 7) will be six times one and one-quarter or seven and one-half inches. The top of the arch will be 6″ + 7.5″=13.5″ above the bottom flange of the I-beam or 1.5″ below the top flange.

There will be a triangular fill over the haunches of the arch and a "straight" fill of an inch and a half over the tops of the arches to the tops of the beams. All of this fill will be made of cinders weighing 45 pounds per cubic foot. As is shown in Fig. 8, a layer of cinders, one inch deep and a foot square, will weigh one-twelfth of 45 pounds, or, approximately, 4 pounds.

The filling over the haunches is roughly in the shape of a triangle, having a base of six feet and an altitude of seven and a half inches. This triangle is equivalent to a straight fill of three inches and three-quarters deep. Add to this the inch and one-half at the top of the arch and the sum will be five and one-quarter inches.

On top of the cinders the sleepers are placed and the space between the sleepers is filled in with cinder concrete. Engineers consider this portion of the floor construction as weighing the same as the cinder fill. To the 5.25″ add 3.75″ and the sum is 9.00″. This is the average depth of the fill between the arch and the rough flooring, and as each inch weighs 4 pounds the total weight is 36 pounds.

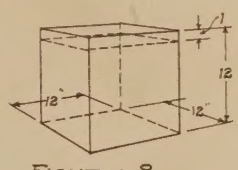


Figure 8
A Layer 1″ Thick and a Foot Square Weighs One Twelfth as Much as a Cubic Ft

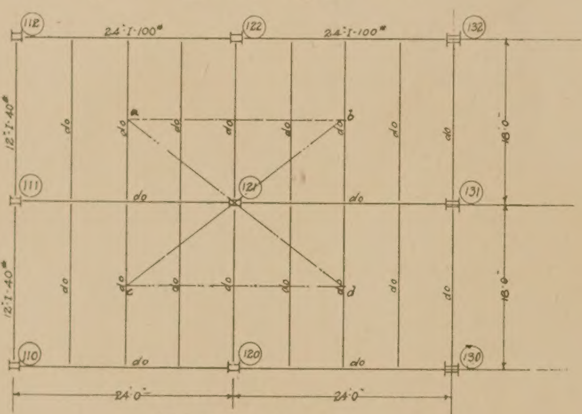
The average weight of a cubic foot of wood can be taken as thirty pounds. A layer, one inch thick and a foot square, will weigh one-twelfth of thirty or two and one-half pounds. There is an approximate thickness of wood flooring of two inches, which will weigh five pounds per square foot of floor area.

There still remains the weights of the ceiling and the

steel beams and girders to be considered. A hung ceiling is always supposed to weigh ten pounds per square foot so this item is easily disposed of, but to understand the method of figuring the weight of the steel as a part of the floor load, it is necessary to study the framing plan (Fig. 9). The portion of the floor enclosed in the area *a b c d* is the size of a floor panel, 18′-0″ x 24′-0″, and in it are found portions of beams and girders, such as those that make up the average panel. There is a part of a twenty-four inch I-beam weighing one hundred pounds per foot. The length of the beam found in area *a b c d* is 24 feet, so the total weight of the girder will be 24 x 100=2,400 pounds. There are four filling-in beams, each of which is 18′-0″ long and weighs forty pounds per foot. The total weight of the beams is then 4 x 18 x 40=2,880 pounds. Add this to 2,400 pounds and the steel in the panel will weigh 5,280 pounds. There are 432 square feet in the panel, so the weight per square foot of floor area of the steel will be 5,280 ÷ 432=12.2 pounds. To be safe, and to give an approximate figure for the steel, this weight will be taken as 13 pounds.

To find the weight of a square foot of floor construction add all the weights given above.

10	pounds	= weight of	ceiling.
27	"	= " "	terra cotta arch.
36	"	= " "	cinder fill.
5	"	= " "	wood floor.
13	"	= " "	steel.
91	"	= Total weight of floor.	



FIGVRE 9

To determine the weight of steel for the Dead Load these sizes are assumed

The ninety-one pounds is the total dead load per square foot but there is still a live load to be considered. The live load is always given in the building codes of the different cities and all that the architect has to do is to find what live load per square foot is required for the particular building he is designing.

The New York Building Code, in section 130, gives the live load on floors of dwellings and apartment houses as not less than sixty pounds. If a building is to be used as an office building, the live load is figured as seventy-five pounds on all floors above the first, and on that the engineer must figure for a live load of one hundred and fifty pounds. Floors of schools must be strong enough to carry seventy-five pounds per square foot. A live load of ninety pounds is allowed on floors of places of public assembly, and store floors must carry one hundred and twenty pounds per squart foot.

In case the floor construction, given above, is to be used in a department store, the live load upon it will be 120 pounds, so the total weight per square foot of floor area will be 91 + 120=211 pounds. As an easy figure to deal with, this total load can be taken as 210 pounds.

In the floor plan (Fig. 9) the weight carried by each twelve inch beam will be 6 x 18 x 210=22,680 pounds. The bending moment will be ⅛Wl=⅛ x 22,680 x 18 x 12=

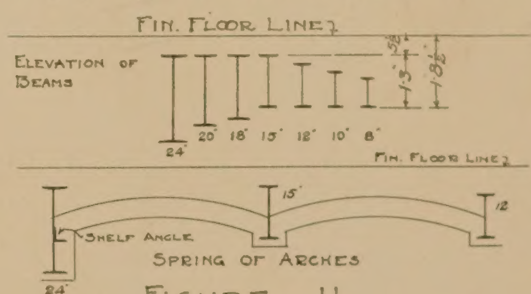
FLAT TERRA COTTA FLOOR ARCH

FIGVRE 10

612,360 inch-pounds. Dividing this by the safe working stress of steel—16,000 pounds per square inch—we will get a value for I/c of 612,360 ÷ 16,000=38.2. The section modulus, or I/c, as given in the steel companies' handbooks, for a 12″-1-40℔ will be a little larger than this.

The type of floor arch that we have been investigating is only one of many that are used in floor construction. Where it is desirable to plaster directly on the soffit—the under side—of the arch, flat terra cotta arches are used. The New York Building Code, in section 106, contains the statement that the "depth shall not be less than one and three-quarter inches for each foot of span, not including any portion of the depth of the tile projecting below the under side of the beam, if the soffit of the beam is straight." This means that for a span of six feet the arch must be ten inches and a half deep above the bottom flange of the beams. If an absolutely flat ceiling is desired, to this ten and one-half inches the depth of the fireproofing on the lower flange of the beams must be added. This fireproofing can be considered as being an inch and one-half thick so the total depth of the arch will be 10.5 + 1.5=12″.

In the terra cotta manufacturing companies' handbooks the depth of arch required for the above condition is given as ten inches. Although the twelve inch depth is excessive it must be used in New York. The weight of a twelve inch arch can be taken as 38 pounds per square foot of floor area. If the arch is sprung between fifteen inch beams (Fig. 10), the distance between the tile and the



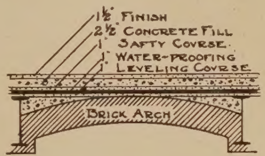
FIGVRE 11

wooden flooring is fourteen inches, approximately. As each inch of fill weighs four pounds, the weight will be 4 x 14=56 pounds. The flooring and steel will weigh the same as in the first case, so the total weight will be:

38	pounds	= weight of	arch.
56	"	= " "	fill.
5	"	= " "	floor.
13	"	= " "	steel.
112	"	= " "	a square foot of floor.
120	"	= " "	live load.
232	"	= Total.	

Taking the load as 230 pounds per square foot of floor area, the section modulus of 41.8 is obtained. A 15″-I-42lb will be required to take this load. As there is only a difference of two pounds between this and the twelve inch beam, it will be practically as cheap to use the deeper section.

It will be noticed that in both Fig. 7 and Fig. 10 the arches are sprung between fifteen inch beams, although twelve inch filling-in beams are often shown in the plans. The reason for the use of the deeper beams is as follows: On all framing plans the relative heights of steel beams are shown in the same manner as given in Fig. 11. All beams, having a greater depth than fifteen inches, are shown "flush top" with the fifteen inch I-beams. This means that the top flanges of these beams are all on the same level, usually from five to six inches below the finished floor line. All beams having a depth of less than fifteen inches are shown "flush bottom" with the fifteen inch beams. As nearly all arches spring from 15″, 12″, or 8″ filling-in beams, this arrangement makes it possible for the bottom of the arches to be on the same level. If the difference of level between the bottom flanges of the beams is more than three inches, it is impossible to spring an arch between them, and a "shelf angle" must be used as seen in Fig. 11. In other words, an arch can be sprung between a 15″ beam and an 18″ beam if the upper flanges of these beams are "flush" but a shelf angle must be used if it is desired to spring the arch between a 15″ beam and a 20″ or a 20″ or a 24″ beam.



FIGVRE 12

THIS IS VERY HEAVY CONSTRVCTION SIDE WALK LOADS ARE SELDOM FIGVRED TO BE MORE THAN 400 POVNDS PER SQVARE FOOT.

The method of finding the weight of a square foot of floor construction, as given above, is the one used in all other cases where floor loads are considered. Sidewalk loads and roof loads differ from floor loads as brick arches are used and the construction must be waterproof.

In Fig. 12 a typical form of sidewalk construction is shown. When a concrete finish is desired a cinder concrete fill is used. The weight for a square foot of sidewalk construction is obtained as follows:

3½″ cement at 10lb per inch......	= 35lb
2½″ concrete fill at 7.5lb..........	= 19lb
1″ waterproofing	= 5lb
3¾″ cinder fill at 4lb	= 15lb
8″ brick arch at 115lb	= 77lb
60lb beam—6′-0″ span	= 10lb
Total dead load	= 161lb
Live load	= 300lb
Total	= 461lb

There are many different kinds of sidewalk, roof, and floor construction, and, of course, the architect must know the type that is being used in any building he is designing. If he employs the method given above, he can easily determine the weight of the floor even though the dimensions or the materials may be different.

Wall loads are no harder to determine than floor loads, but, as walls are cut up by windows, the work required to find the points where the greatest load is going to bear upon the wall beam is tedious. If accuracy is required, it is necessary to study every panel of the wall. As the method of determining the beam to carry a wall, where the loading is not uniform, involves the consideration of concentrated loads, wall loads will be taken up in the next article.

As problems for practice, it is suggested that the architect determine for himself whether the beams in any framing plan that he may have are of the proper size to carry the loads found by him.

TWO MODERN HOSPITALS

I. E. DITMARS, ARCHITECT

St. Anthony's Hospital, Woodhaven, L. I., plates XCVII-CI, and German Hospital, New York, Private Patients Building, plates CII-CIV.

TWO hospital buildings, erected for such widely different purposes and governed by totally different conditions, cannot be considered in comparison, but, as they represent the work of one architect, it is interesting to note the processes which Mr. Ditmars used in meeting the special requirements peculiar to each.

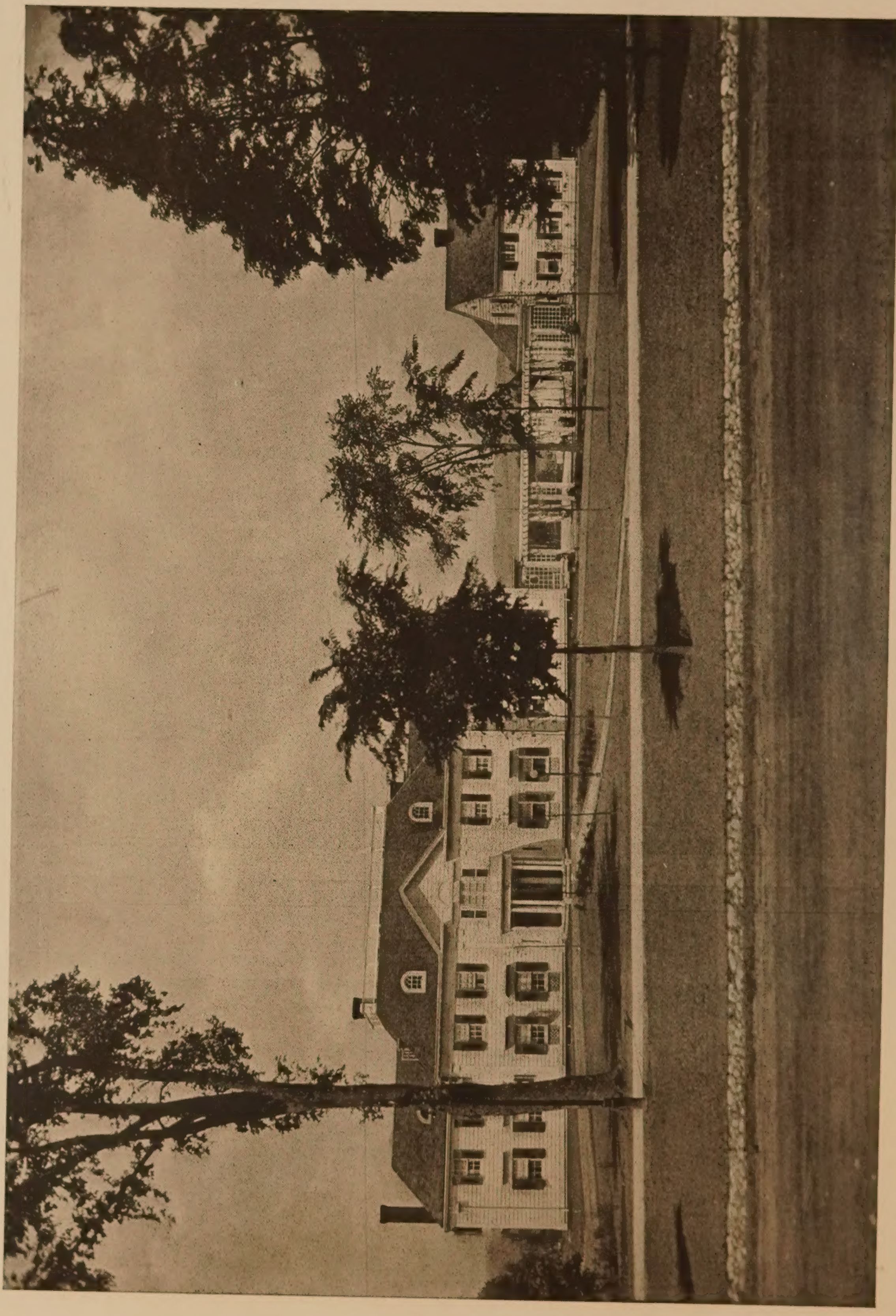
Such is the sweep of the architect's vision that he must see ahead the desirable completeness of his problem, and then start the collection of a multitude of units combining them into a finished whole.

In the planning of St. Anthony's Hospital at Woodhaven, L. I., it was necessary to make an institution that stood for itself in every small point of arrangement, service and equipment. Being under the administration of a Roman Catholic Sisterhood, housing and religious accommodations had to be considered. The treatment of tuberculosis patients in all stages of disease is the exclusive purpose of the institution and, for this reason, many restrictions were imposed regarding sanitary conditions, the health laws and economy of administration and service.

The construction of this building was carried through under general contract secured by Mr. G. Albert Zimmerman who has recently become junior member of the firm of Jacob A. Zimmerman & Son, Inc. It is a matter of comment that the job was turned over complete without an extra.

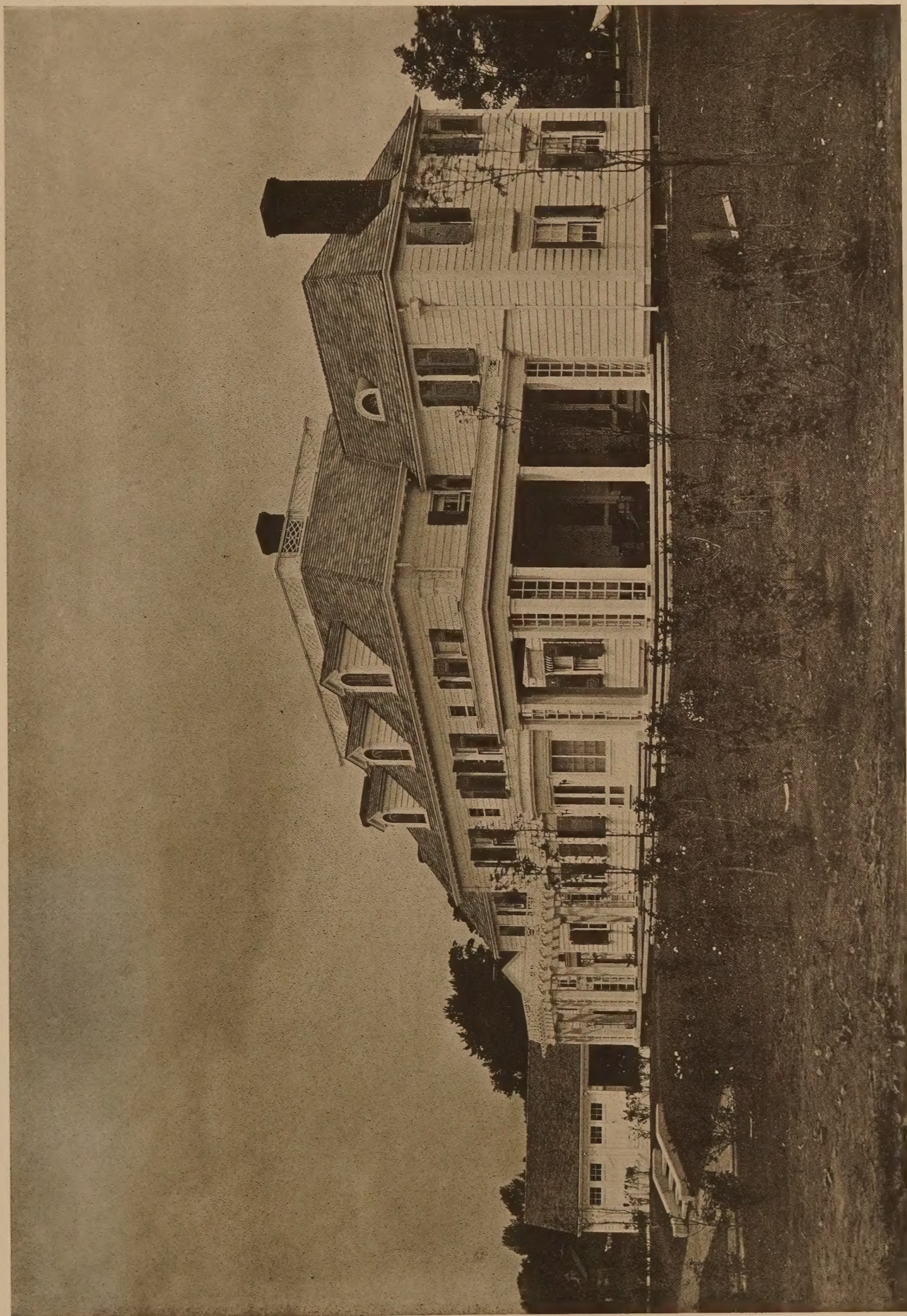
Having a large plot and in comparatively open country it was possible to plan on a large scale with all the advantages of light and air so essential to treatment of consumptives. The architect was further benefited by a long experience and practice enabling him to escape common errors or expensive experiment. While the plan shows one complete building and the exterior photographs carry out the idea, the departments are so distinct and rigidly confined to their use that it is difficult to consider the extensive interior in any other way than as a connected group. The foundations are carried up for several feet above the ground giving light and ventilation in the spacious basements, cellars, engine rooms and storage rooms. The exterior walls are of red brick. Over the main entrance is a beautifully cut figure of St. Anthony. This is the only attempt at decoration on the exterior. The engine room is a marvel of up-to-date equipment and here is placed the ice making and refrigerating machinery that supplies the large general storage box, the fifteen diet kitchen boxes and the morgue box with its seven mortuary trays. The heating system is accomplished by a hot water circulation using a converter system, subdivided into several units. It

(Continued page 190)



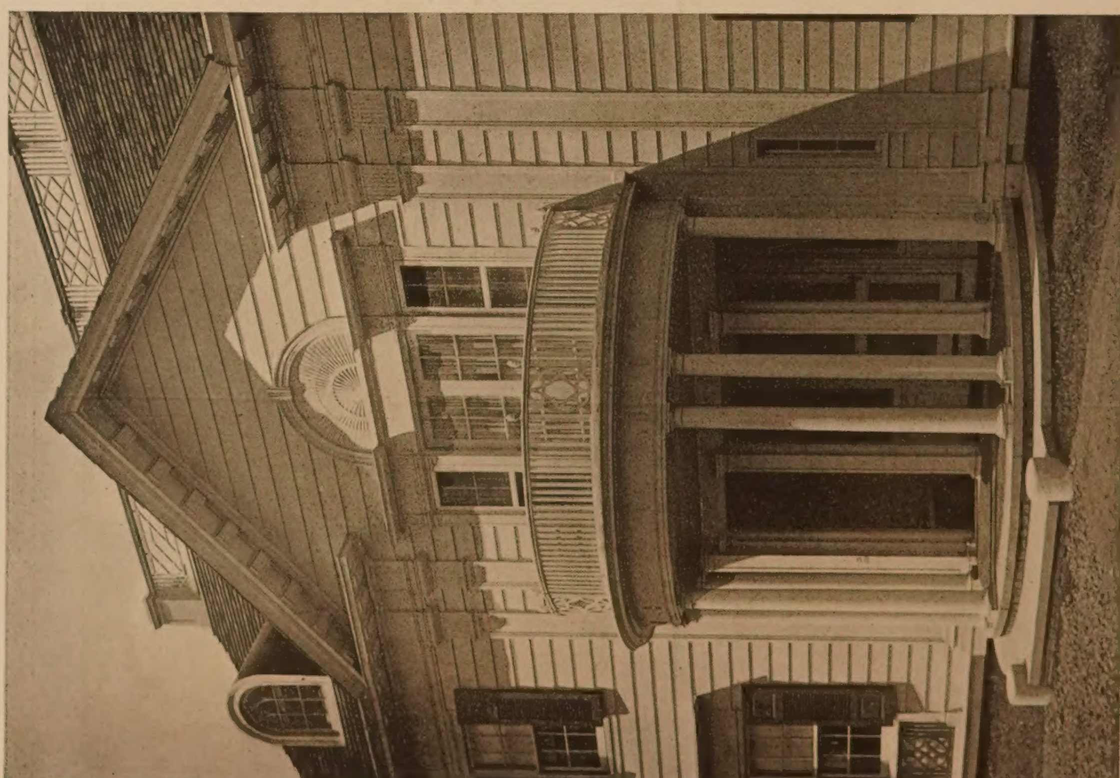
HOUSE, HENRY R. TOWNE, LITCHFIELD, CONN

Aymar Embury II, Architect.

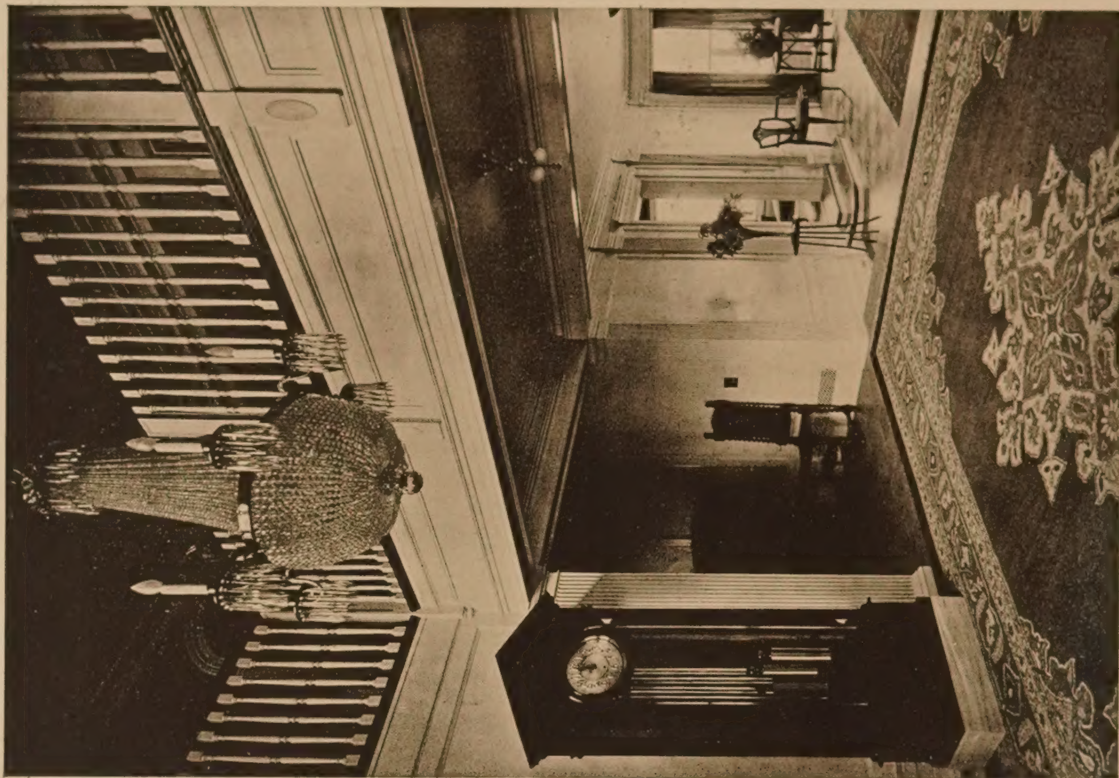


GARDEN FRONT, HOUSE, HENRY R. TOWNE, LITCHFIELD, CONN

Aymar Embury II, Architect.



Main Entrance. (See Measured Detail No. 26)

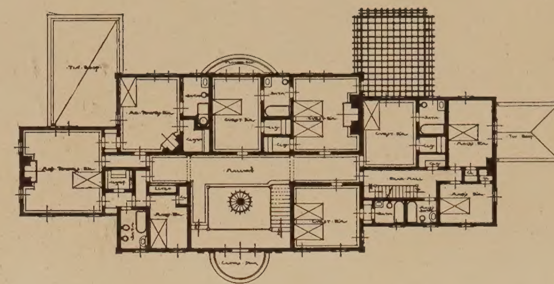


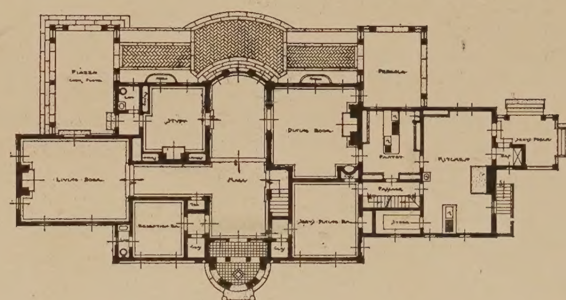
Hall.

HOUSE, HENRY R. TOWNE, LITCHFIELD, CONN.

Aymar Embury II, Architect.

Chauffeur's Cottage and Garage.





HOUSE, HENRY R TOWNE, LITCHFIELD, CONN

Aymar Embury II, Architect.

Dining Room

Hall

HOUSE, HENRY R. TOWNE, LITCHFIELD, CONN.

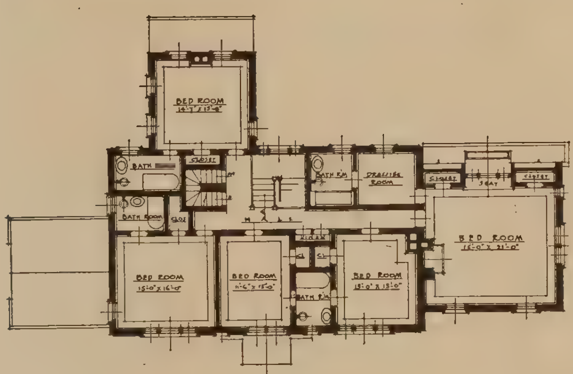
Aymar Embury II, Architect.

HOUSE, R. M. ELLIS, KENSINGTON, GREAT NECK, L. I

Aymar Embury II, Architect.

Aymar Embury II, Architect

HOUSE, R. M. ELLIS, KENSINGTON, GREAT NECK, L. I.



HALL AND PLANS, HOUSE, R. M. ELLIS, KENSINGTON, GREAT NECK, L I

Aymar Embury II, Architect.

HOUSE, GEO. B. AINSWORTH, KENSINGTON, GREAT NECK, L. I. (Plans page 173).

Aymar Embury II, Architect.

DOORWAY AND LIVING ROOM, HOUSE, GEO. B. AINSWORTH, KENSINGTON, GREAT NECK, L. I. Aymar Embury II, Architect.

HOUSE, GUY HUTCHINSON, NEW BRITAIN, CONN. (Plans page 173).

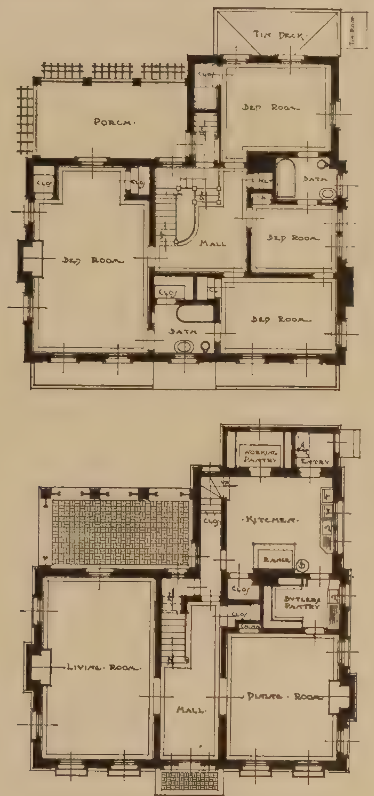
Aymar Embury II, Architect.

HOUSE, JOHN D. FEARHAKE, NEW CANAAN, CONN. (Plans page 173).

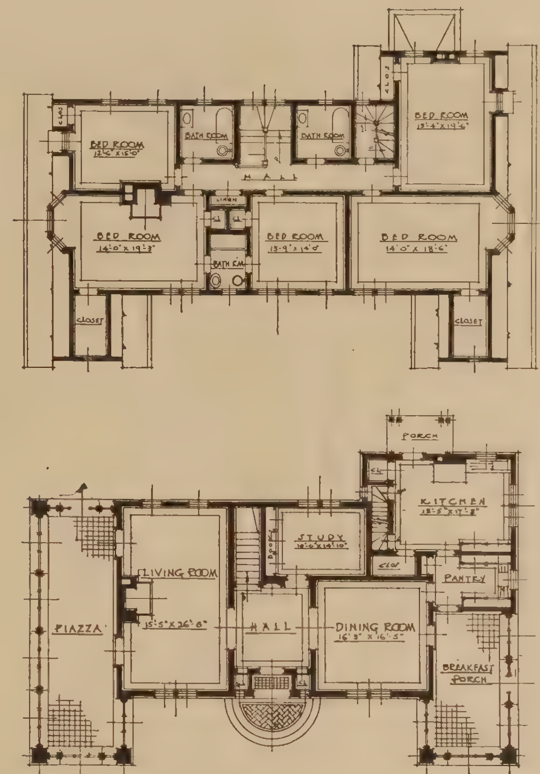
Aymar Embury II, Architect.

HOUSE, STEWART AVE., GARDEN CITY, L. I. (Plans page 173

Aymar Embury II, Architect

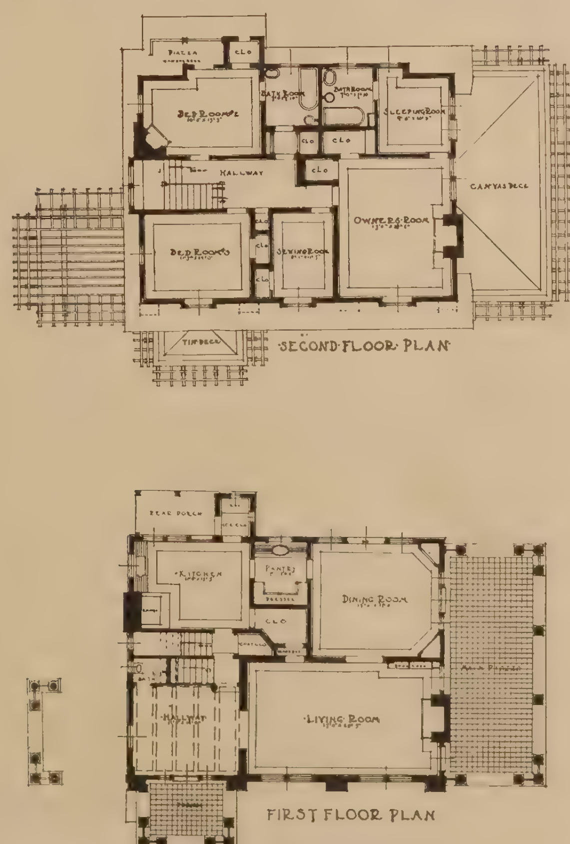


PLANS, HOUSE, GEO. B AINSWORTH, (Page 168).



PLANS, HOUSE, GARDEN CITY, (Page 172).

PLANS, HOUSE, JOHN D. FEARHAKE, (Page 171).



PLANS, HOUSE, GUY HUTCHINSON, (Page 170).

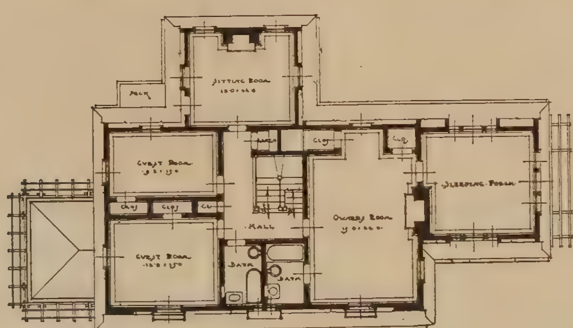
HOUSE, MRS. HARRISON SANFORD, LITCHFIELD, CONN.

Aymar Embury II, Architect

DOORWAY AND PLANS, HOUSE, MRS. HARRISON SANFORD, LITCHFIELD, CONN. Aymar Embury II, Architect.

HOUSE, F. C. NOBLE, NEW CANAAN, CONN.

Aymar Embury II, Architect.

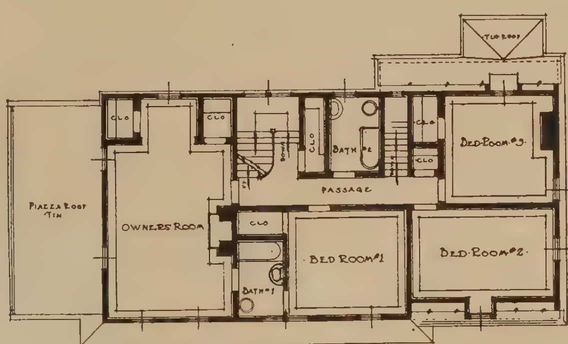


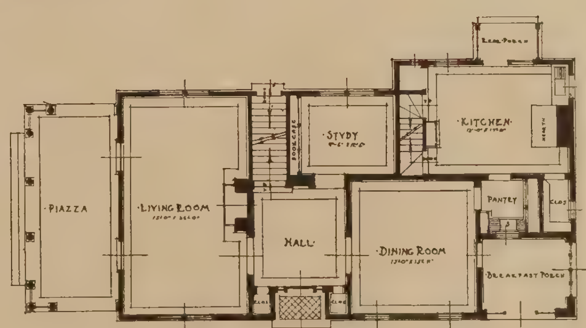
DINING ROOM AND PLANS, HOUSE, F. C. NOBLE, NEW CANAAN, CONN.

Aymar Embury II, Architect.

HOUSE, MRS. GEORGE M. GALES, KENSINGTON, GREAT NECK, L. I.

Aymar Embury II, Architect.



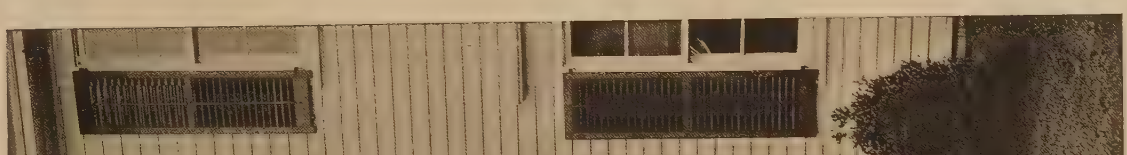


HOUSE AND PLANS, MRS. GEORGE M. GALES, KENSINGTON, GREAT NECK, L. I.

Aymar Embury II, Architect.

Aymar Embury II, Architect

HOUSE, JOHN A. KINGMAN, BRIDGEPORT, CONN.



Aymar Embury II, Architect.

DOORWAY AND PLANS, HOUSE, JOHN A. KINGMAN, BRIDGEPORT, CONN.

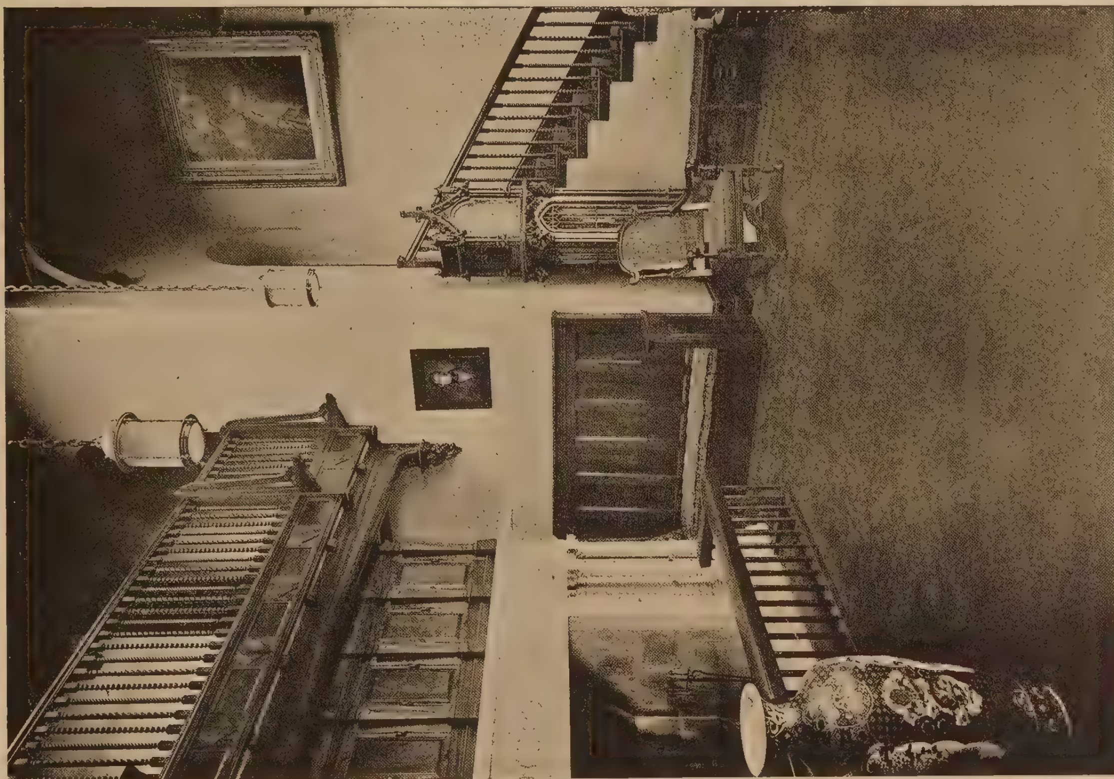
HOUSE, STEWART AVE., GARDEN CITY, L. I. Aymar Embury II, Architect

HOUSE AND PLANS, STEWART AVE., GARDEN CITY, L. I.

Aymar Embury II, Architect

HOUSE, J. F. BRICE, LANGHORNE, PA

Aymar Embury II, Architect.

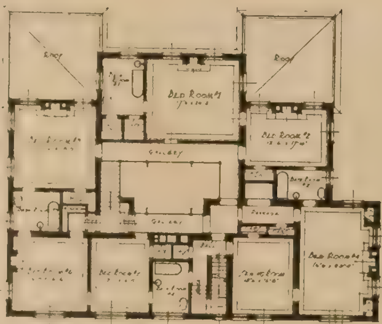


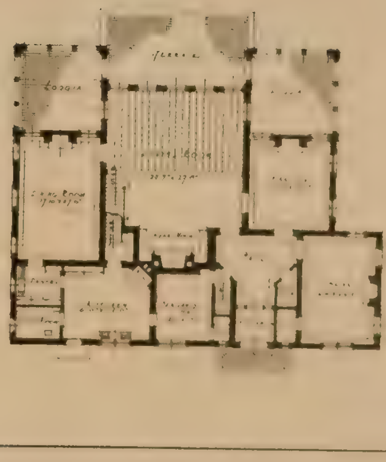
Hall

Doorway

HOUSE, J. F. BRICE, LANGHORNE, PA

Aymar Embury II, Architect.





DINING ROOM AND PLANS, HOUSE, J. F. BRICE, LANGHORNE, PA.

Aymar Embury II, Architect.

Lawn Front.

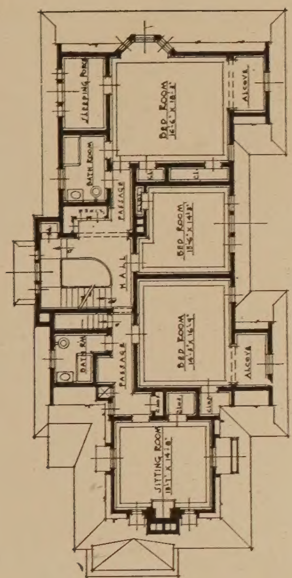
Hall.

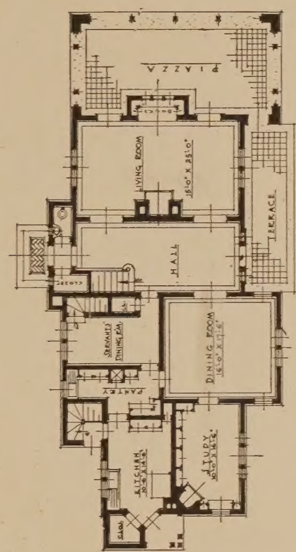
HOUSE, L. W. DODD, NEW HAVEN, CONN.

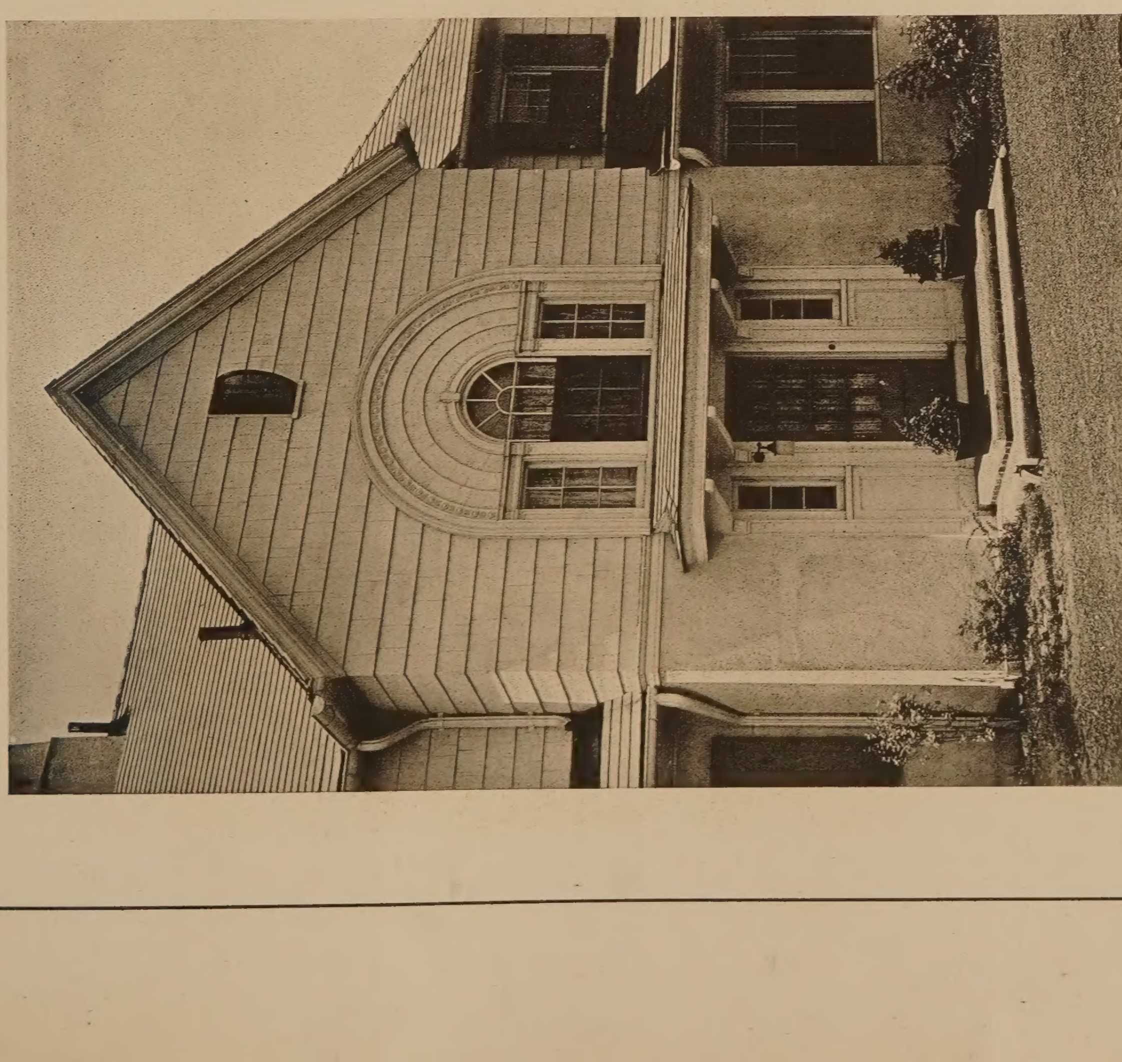
Aymar Embury II. Architect.

HOUSE, L. W. DODD, NEW HAVEN, CONN.

Aymar Embury II, Architect.







MAIN ENTRANCE AND PLANS, HOUSE, L. W. DODD, NEW HAVEN, CONN.

Aymar Embury II, Architect.

(Continued from page 159)

is very plain, simple and economical in installation and operation.

On the ground floor are public rooms, waiting rooms and administration department, laundry, kitchen and Sisters' Refectory. At the first landing of the main staircase Mr. Ditmars has placed a large stained glass memorial window as a tribute to his late partner, William Schickel. Beginning at the ground floor all of the space in the four wings is occupied by the wards. Each ward has its separate conveniences and fixtures, each has its sun-parlor at the outer end and above each wing is a covered roof garden from which outside staircases lead to the ground with landings at every floor. There is an absence of operating rooms and surgical equipment as surgery is not applied to any great extent. The halls and corridors throughout are paved with a beautiful pattern marble tile. Other floors are of composition, tile or wood. The trim is plain, kept very flat and finished with a smooth glossy surface, the woodwork covered with hard durable enamel. Heavy unpaneled doors made on a strong wood core and veneered by special process, help to produce a clean simple and yet suitable treatment for work of this character. The chief architectural effort was made in the chapel which occupies a central position and extends through the first and second stories of the building. The plaster work in the chapel is exceptionally good. Our illustrations show the delicately designed altar and the two galleries.

THE Pay Patient Building for the German Hospital, New York City, presents opportunity for an almost luxurious illness. As a separate building of a large group but quite independent of the rest, it was designed along entirely new lines well adapted to its purpose. The exterior shows nothing of the hospital character. It would make a very satisfying facade for a high-class apartment house. Evidently, Mr. Ditmars had this in mind when he gave the building such a homelike, comfortable appearance.

The main entrance on 76th Street enters into a spacious entrance hall, to the left of which are the offices and to the right are the waiting rooms. The entrance hall leads into a long corridor running the full depth of the building to the court at the back. On both sides of this corridor are parlors, dining rooms, rooms for medical staff and consultation rooms. Two passenger elevators run from the basement to the roof garden. In the basement are situated the kitchens, storage, etc.

Perhaps the most remarkable thing about the building is the second floor which is entirely given over to the various branches of therapeutics, in charge of a special staff. It includes separate departments of Mechano Therapy, Electro Therapy, Thermo Therapy and Hydro Therapy and a patient may receive special treatment for almost any ill, real or imaginary, with or without medicine or surgery. The suite is provided with rest rooms, dressing rooms, toilets and waiting rooms.

A typical floor plan applies to the private room floors from the third to the eighth. It shows the convenient arrangement of rooms and suites, each with its individual bath and wardrobe. Every room floor has its nurse's room, porter's room and maid's room. From the kitchen in the basement, dumbwaiters carry the food to pantries on each floor from which it is distributed to private rooms.

On the ninth floor is the Solarium, well furnished and attractive, high above the street noises and giving a pleasant social hall for convalescents where they may read, chat or otherwise amuse themselves during the tedious hours. Above the Solarium on the tenth floor is the loggia. The surgical or operating rooms occupy the rear of this floor. These rooms are a marvel of up-to-date equipment and practical convenience. Everything is placed for service at the critical moment and every safeguard maintained against accident or loss of time.

The architectural treatment of the entire building shows rare discretion in producing the highest type of fire-proof construction and all of the requisite points of scientific and sanitary methods, at the same time handling the building in such a way that it has lost much of the old style institutional feeling. The furnishing of the rooms could be well placed in any private home and to this is added the advantages of many mechanical devices that expedite the comfort and care of the sick such as could not be obtained in home treatment. Both in plan and design, the Pay Patient Building has a character all its own.

FELLOWSHIPS OF THE AMERICAN ACADEMY IN ROME—1914.

THE competition for the Fellowships, awarded each year by the American Academy in Rome, consist of the execution of works of art, such as drawings, paintings or models and an Academy Fellowship is awarded to the successful competitor in each class.

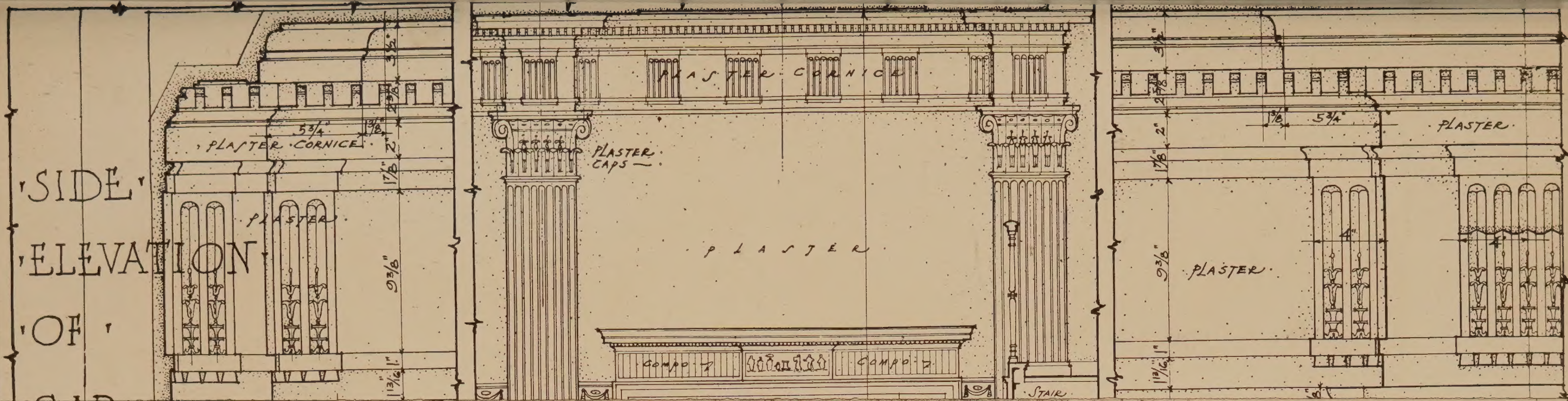
The awards are made on competitions open to all unmarried men, citizens of the United States, who comply with the regulations of the Academy.

This year there were fifty applicants in the architectural class of whom thirty-seven were admitted to the preliminaries. Four were selected for the final.

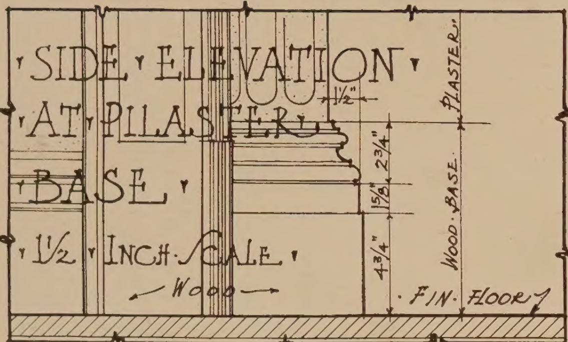
The award in architecture was given to William J. Hough, University of Pennsylvania; in painting, Harry I. Stickroth, National Academy of Design, New York; in sculpture, Mr. Berthold, American Academy of Design.

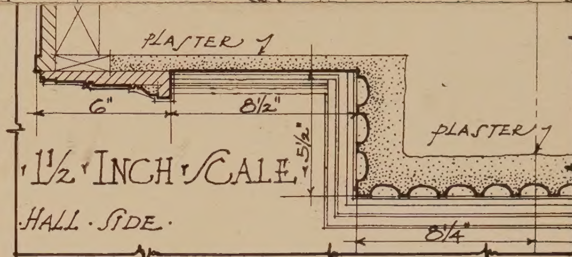
The value of each of the above fellowships amounts to $1,000 a year for three years, with an allowance of $100 for traveling expenses. In the school of Classical Studies, Fellowships were awarded to E. S. McCartney, 2 years; Horace W. Wright, 1 year. The new fellows will be given a dinner early in September and will leave New York in time to report at the Academy, October 1st.

POLITICAL circles in Melbourne (says the *Daily Chronicle* correspondent) are greatly amused by the statement by Mr. Archibald Meston, a noted Queensland authority on aboriginal names, that Canberra, the name selected for the new Commonwealth capital, really means "The Laughing Jackass." Mr. Meston blames the government for not having ascertained the meaning of the name before coming to a decision.



SCALE OF DETAILS
ONE & ONE HALF INCH EQUALS ONE FOOT
SCALE OF ELEVATION & PLAN
THREE EIGHTHS INCH EQUALS ONE FOOT





"ARCHITECTVRE" SERIES OF MEASVRED DETAILS

DOORWAY PILASTERS ETC SECOND FLOOR HALL
WOMEN'S VNIVERSITY CLVB NEW YORK CITY
NELSON & VAN WAGENEN ARCH'TS N Y C

DRAWING NO 27
SEPTEMBER 1914
DRAWN BY WALTER McQVADE